

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A disk apparatus for reading and writing data to a storage medium, wherein:

said disk apparatus comprises:

a storage means for storing pieces of defective track information into areas at respective addresses each corresponding to physical track number information, with each piece of the defective track information indicating existence of defective tracks in a plurality of tracks, and for storing pieces of defect information in predetermined groups, with each piece of the defective track information indicating information on a defective track in said plurality of tracks; and

a processing means for receiving an instruction of read or write to a track of said storage medium, for referring to said storage means, and for performing defect processing on a defective track; and, wherein

said storage means stores pieces of pointer information for groups of said pieces of defective track information, with each piece of the pointer information indicating a start

address of ~~an-a~~ storage area for each of said predetermined groups~~s~~, and

when said processing means receives an instruction of read or write to a track of said storage medium, said processing means refers to a piece of said defective track information based on said addresses, and then, when existence of a defective track is indicated, refers to a piece of pointer information for a group to which said piece of the defective track information belongs, accesses the pieces of defect information on defective tracks sequentially from a storage area indicated by said piece of pointer information, detects defect information when the track as an object of said instruction is a defective track, and performs defect processing on said defective track based on said defect information.

2. (Currently Amended) The disk apparatus according to Claim 1, wherein:

 said storage means stores, ~~as said for~~ each said piece of defect information, physical track number information on said defective track, information indicating a method of the defect processing, and a storage capacity of said piece of defect

information or an end location of a storage area for said piece of defect information.

3. (Currently Amended) The disk apparatus according to Claim 1, wherein:

 said disk apparatus further comprises a holding means for holding a number of said plurality of tracks corresponding to one piece of defective track information; and

 said number held by said holding means is set from an outside of the holding means.

4. (Original) The disk apparatus according to Claim 1, wherein:

 said processing means accesses a storage area for said defective track information, according to an address obtained by adding a predetermined base address to an address corresponding to said physical track number information.

5. (Currently Amended) A disk apparatus for reading and writing data to a storage medium, wherein:

said disk apparatus comprises comprising:

a storage means that has an area in which pieces of physical track number information on defective tracks are stored into areas at respective addresses corresponding to said pieces of physical track number information, and an area in which pieces of defect information on said defective tracks are stored; and

a processing means for receiving an instruction of read or write to a track of said storage medium, for referring to said storage means, and for performing defect processing on a defective track, wherein

and

said storage means stores said pieces of physical track number information on defective tracks and pieces of pointer information indicating addresses of areas at which pieces of defect information on said ~~pieces of defective tracks~~ are stored, and

when said processing means receives an instruction of read or write to a track of said storage medium, said processing means refers to a piece of said physical track number information on defective tracks based on said addresses, and then, when said track as an object of said instruction is a defective track, refers to a piece of said

pointer information, detects to detect a piece of the defect information at a storage area indicated by said piece of the pointer information, said piece of defect information having a plurality of formats for processing a plurality of defects, and performs defect processing on said defective track based on said piece of the defect information.

6. (Original) The disk apparatus according to Claim 5, wherein:

said storage means partitions a storage area into partition areas each corresponding to a plurality of tracks, and further stores pieces of identification information on said partition areas; and

said processing means accesses each of said partition areas each corresponding to a plurality of tracks.

7. (Currently Amended) A disk apparatus for reading and writing data to a storage medium, wherein:

~~said disk apparatus comprises comprising:~~
a storage means for storing pieces of physical track number information on defective tracks and pieces of defect information on said defective tracks into areas at respective

addresses corresponding to said pieces of physical track number information; and

a processing means for receiving an instruction of read or write to a track of said storage medium, for referring to said storage means, and for performing defect processing on a defective track, wherein

when said processing means receives an instruction of read or write to a track of said storage means, said processing means refers to a piece of said physical track number information on defective tracks based on said addresses, ~~to detect a piece of the defect information,~~ and then, when said track as an object of said instruction is a defective track, performs defect processing on said defective track based on said piece of the defect information, said pieces of the defect information having a plurality of formats for processing a plurality of defects.

8. (Currently Amended) The disk apparatus according to Claim 7, wherein:

said storage means stores a volume of each piece of said defect information, ~~before and after~~ in a head portion and a

end portion of each said each piece of the defect information;

and

said processing means sequentially accesses said pieces of defect information ~~forward and backward~~.

9. (Original) The disk apparatus according to Claim 1, wherein:

said defect processing performs at least either of skipping processing, in which a defective sector is replaced by a normal sector, and slipping processing, in which a defective sector is replaced by a normal sector that physically follows said defective sector.

10. (Original) The disk apparatus according to Claim 5, wherein:

said defect processing performs at least either of skipping processing, in which a defective sector is replaced by a normal sector, and slipping processing, in which a defective sector is replaced by a normal sector that physically follows said defective sector.

11. (Original) The disk apparatus according to Claim 7,
wherein:

 said defect processing performs at least either of
 skipping processing, in which a defective sector is replaced
 by a normal sector, and slipping processing, in which a
 defective sector is replaced by a normal sector that
 physically follows said defective sector.

12. (New) A disk apparatus according to claim 5,
wherein:

 said pieces of defect information consist of control
 information and control contents, and
 said processing means grasps the format of the data for
 defect processing based on the control information and
 performs control processing in accordance with the format,
 whereby the defect processing on the defective tracks is
 performed based on the defect information.

13. (New) A disk apparatus according to claim 7,
wherein:

 said pieces of defect information consist of control
 information and control contents, and

said processing means grasps the format of the data for defect processing based on the control information and performs control processing in accordance with the format, whereby the defect processing on the defective tracks is performed based on the defect information.

14. (New) A disk apparatus according to claim 5,
wherein:

 said format contains a sequential number of sectors as an object of the defect processing a plural number of times.

15. (New) A disk apparatus according to claim 7,
wherein:

 said format contains a sequential number of sectors as an object of the defect processing a plural number of times.